

Abstract of the Disclosure

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A slot allocation among child station devices is determined in a communication control device, and slot allocation information is sent as a downward signal to the child station devices. In each child station device, upwards packets are inserted into slots of an upward signal according to the slot allocation information, and the upward signal is sent from the child station devices to the communication control device. In the communication control device, it is checked whether or not upward packets exist in slots of the upward signal. Also, one child station device relating to slots of the upward signal currently received is identified according to a preset delay time for each child station device and a current time, the number of slots allowed for the identified child station device is detected according to the slot allocation information. In a traffic assuming unit, a traffic volume of upward packets sent from the identified child station device in the future is estimated according to the packet existence information and the number of allowed slots. Thereafter, the slot allocation information of the child station devices is changed according to the estimated traffic volumes of the child station devices. Accordingly, the traffic volume can be accurately estimated in a short time, and a transmission bandwidth of the upward signal can be properly allocated among the child station devices.